

ARTIFICIAL INTELLIGENCE IN THE FILM INDUSTRY: A STUDY ON THE PERSPECTIVE OF GEN Z TOWARD AI-GENERATED CREATIVITY

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ABSTRACT

The film industry has changed with the rise of Artificial Intelligence in the industry, especially in creative things like writing scripts, making special effects and using fake actors. This study explores at what Generation Z, or also known as Gen Z, perceives and accepts about Artificial Intelligence (AI) being used to make things in Indonesian movies. From an Information Systems perspective, however, technology acceptance research has predominantly focused on productivity and organizational settings, leaving AI adoption in hedonic, creativity-driven contexts underexplored, which a gap especially evident in Indonesia, where the film industry is growing rapidly yet remains underexplored in current IS research studies. This study extends the Technology Acceptance Model (TAM) to examine how Generation Z perceives and accepts AI-generated creativity in the Indonesian film industry. Using a quantitative approach with PLS-SEM analysis using SmartPLS4 on 376 Gen Z respondents, to explore how external influences, such as AI technology development and the business environment, and internal influences, such as prior technology experience, in shaping the perceptions of AI usefulness and task simplification, and how these consequently affect attitudes, behavioral intention, and actual use. The findings largely supported the study's hypotheses, with Gen Z showing favorable attitudes toward AI in filmmaking, particularly when it makes the creative process more useful and manageable. That said, many respondents were uncomfortable with AI fully replacing human creativity. The bottom line is clear: AI is welcomed as a helper, not a substitute, and filmmakers who want to bring AI into their work would do well to keep the human heart of storytelling intact.

Keywords: *Artificial Intelligence, Film Industry, Technology Adoption, External & Internal Factors, Perceived Usefulness, Task Simplification, Attitude Toward AI, Behavioral Intention, Actual Use.*

1. INTRODUCTION

Films in the industry have been a powerful form of entertainment since the early 1900s, as it is shaping culture and imagination. The “Golden Age of Hollywood” in the 1930s–1960s, for an instance, relied heavily on creativity and practical effects, producing classics like *The Wizard of Oz* and *Casablanca*. Decades later, the rise of CGI in the 2000s and 2010s transformed the industry once again, giving us iconic movies like *Avatar*, *The Lord of the Rings*, and the *Marvel* superhero franchise. These effects amazed audiences, but they also marked a shift in filmmaking, where

technology began to play a bigger role than ever before [1].

Today, as the technology keeps evolving, the next big shift in filmmaking is unfolding: Artificial Intelligence (AI). AI is the ability of machines to perform human-like thinking, such as learning, reasoning, problem-solving, and even creativity. From AI-generated scripts to deepfakes and enhanced CGI, filmmaking is moving into an era where machines can assist, or even replace, traditional creative processes. While AI opens new doors for efficiency and entertainment, it also raises questions about what's real, what's fair, and what it

means for human creativity in films and the future of storytelling [2].

According to past research, there is a lot of interest in using AI's quick and innovative development to streamline filmmaking processes, such as it boosts productivity, and greatly enhances film quality [3]. This technological necessity leads to a time when artificial intelligence (AI) capabilities will be used in all phases of filmmaking, from postproduction to screenplay development. But in the long run, the success of AI in such a creative field doesn't just depend on how powerful the technology is, but also on whether people are willing to accept and trust it [3].

Among the generations of film audiences, Gen Z stands out. Gen Z is known as the generation that grew up in the digital era and is used to consume various forms of entertainment, including films [4]. Yet while they embrace AI in daily life, from chatbots to meme generators, their acceptance of AI driven filmmaking is far less certain. This study focuses on Gen Z in Indonesia, exploring how they perceive AI generated content in the film industry. It examines how AI is used in filmmaking, what standards shape Gen Z's acceptance or rejection of it, and what this means for the future of creative industries. Knowing how Gen Z feels about AI can guide filmmakers and studios to use the technology in ways that appeal to young audiences, while also setting standards for ethical and creative storytelling.

2. LITERATURE REVIEW

2.1 Emerging Uses of AI in Film

Artificial Intelligence has rapidly become a disruptive force in the global film industry, transforming traditional creative and production processes. Industry reports further emphasize that AI has shifted from being a supplementary tool to a core element of film production, marketing, and distribution [3], [5]. Scholars have examined how AI contributes to areas such as scriptwriting [6], content generation [7], and even social representation [8].

Film examples include *The Brutalist*, where they used AI to change the actor's (Adam Brody) accent; *M Hotel*, which was made entirely by AI; even big film productions such as *Marvel Studios* used generative AI to create the opening credits of one of their series titled *Secret Invasion* [9], [10]. *The Irishman* used advanced digital de-aging technology to portray its main characters

across several decades of their lives. Actors Robert De Niro, Al Pacino, and Joe Pesci were digitally altered using AI-assisted visual effects so they could appear significantly younger in earlier scenes of the film [11]. Even Google has created an AI that can perfectly replicate human movements and voices in the form of videos [12]. In the recent time, OpenAI just released a new version of an AI tool called Sora 2 was downloaded over 1 million in less than five days [13]. This has led to an abundance of videos on social media by making it simple for people to share their own videos. Another example is Jakarta Film Week that announced some of the films that will be shown on screen includes a two-minute AI-generated film called PLSTC. This is not the first time the festival has shown an AI film before going back in 2024. Our research consists of 3 Independent Variables, which are AI-Generated Scripting, AI Enhanced CGI / Visual Effects, and Efficiency vs Authenticity. We have also included 3 Dependent Variables, which are Perception of AI Creativity, Acceptance Level, and Emotional Engagement [14].

The film industry has changed with the rise of Artificial Intelligence in the industry, which marks the significant shift in creative production. However, from an Information Systems perspective, technology acceptance research has predominantly focused on productivity and organizational settings, which leaves AI adoption in hedonic, creativity-driven underexplored. This gap particularly evident in Indonesia, where the film industry is growing rapidly, yet remains underexplored in the current IS research studies. This study therefore extends TAM to examine Generation Z's perception of AI-generated creativity in the Indonesian film industry, contributing theoretically by applying TAM beyond its traditional context, and practically by offering insights for filmmakers.

2.2 The Rationale for Selecting Generation Z

Generation Z is known to have distinctively a proactive relationship with emerging uses of digital tools, particularly Artificial Intelligence (AI). This unique relationship is different from the previous generations as Gen Z are often considered 'digital natives' who have strongly integrated advanced technologies into their daily routines [15]. A recent study discovered that the generational differences in AI adoption into their daily routines revealed that Gen Z participants show optimism toward the potential of generative AI by expressing a high willingness to use such

tools to enhance productivity and creativity. This stands in contrast to the caution and ethical concerns often expressed by older generations [15]. Therefore, Gen Z's viewpoint represents the driving force and the critical consumer base for the AI-driven future of media [16]. Hence, understanding their perspective toward AI-generated creativity is essential, as their acceptance, skepticism, or rejection will provide new insights of AI tools aiming to optimize filmmaking operations and improve film quality.

2.3 Conceptual Framework: The Adrian Isip Model

The research model used in this study is adapted from the framework proposed by Adrian Isip (2024) in his article “The Impact Regarding the Use of Robotic Process Automation and Artificial Intelligence in Accounting Services Industry.” His model was chosen as the baseline of our own research model because it provides a clear and structured explanation of the factors that influence people’s acceptance and use of AI technologies. The research model in this study is used based on the Technology Acceptance Model (TAM), which describes how different factors shape an individual’s attitude and intention to use new technology. According to Isip’s study, external factors such as technological development and the business environment, together with internal factors like previous experience with technology, affect people’s perceptions of how useful AI is and how it can simplify their work tasks. These perceptions then influence their attitude toward adopting AI, which later impacts their intention and actual use. This model is suitable for our study because it helps explain how people form opinions and behaviors towards AI. By adapting this framework, our study focuses more on how Gen Z’s familiarity with technology and exposure to creative tools influence their perceptions of AI’s usefulness and ease of use in creative processes [17].

3. RESEARCH METHODOLOGY

This research study adopted a quantitative method, to collect the data to explore the factors influencing Gen Z’s perception and acceptance of the creative use of Artificial Intelligence (AI) in the film industry. The research focuses on understanding how external and internal factors shape perceptions, attitudes, and behavioral usage of AI as a creative tool.

The data will be collected through an online questionnaire distributed to Gen Z individuals residing in Indonesia, with a range of age born

between 1997 to 2012. The questionnaire is provided in both English and Indonesian to ensure accessibility. The questionnaire uses Likert-scale items, ranging from 1 to 5, where 1 indicates strongly disagree and 5 indicates strongly agree. Likert-scale is used to measure the respondents’ agreement with statements related to perception and acceptance towards AI adoption and creative use in film industry.

The sampling method is non-probability voluntary response sampling, distributed via the social media platforms to reach a diverse audience of Generation Z throughout Indonesia. The target sample size is 400 respondents.

This study will use Partial Least Squares Structural Equation Modelling (PLS-SEM) for analyzing the data because of the moderately complexity of the research model, using a data analysis software that is SmartPLS4. PLS-SEM is known for its great ability to handle and analyze complex models and access both the measurement and structural models at the same time [18].

The distributed questionnaire has collected a total of 412 responses by using the operationalization of variables with a total of 20 items and is designed to measure the constructs outlined in the adapted research model in Figure 2. These items are grouped based on the external factors, internal factors, perceptions on the usefulness, perceptions of task simplifications, attitude towards the adoption of AI, behavioral intentions to AI, and actual use of AI as shown in Table 1.

Table 1: Operationalization of Variables

Operationalization of Variables		
Code	Questions Indicators	Item No.
External Factors		
Q2	The filmmaking process has undergone major changes thanks to advances in AI technology.	1
Q3	The use of AI in the creative production process is strongly encouraged by the business environment in the film industry.	2
Q4	The use of AI in film production is increasing due to competition between film companies.	3
Q5	AI makes movies better and more appealing to audiences.	4

Internal Factors		
Q8	My experience with technology can influence my acceptance of creative works produced by AI.	5
Q9	I value films made by artificial intelligence more than those made by humans.	6
Q10	I want to watch a movie that was mostly made with AI.	7
Perceptions on the Usefulness of Artificial Intelligence		
Q11	The use of AI improves the quality of the final film	8
Q12	AI helps generate more innovative ideas and visuals	9
Perceptions of Task Simplification through Artificial Intelligence		
Q16	AI technology is easy to apply in the creative process of filmmaking.	10
Q17	The use of AI technology helps accelerate the film production process.	11
Q18	AI facilitates editing and improves the visual quality of films	12
Attitude Towards the Adoption of Artificial Intelligence		
Q21	I have a positive view of films that use AI.	13
Q22	I feel that AI can be a creative tool for filmmakers.	14
Behavioral Intention to Use of Artificial Intelligence		
Q25	I am willing to watch movies that are partially or entirely made using AI.	15
Q26	I support filmmakers who use AI in their creative production process.	16
Q27	I am open to watching more films made with the help of AI in the future.	17

Q28	I will recommend movies made with the help of AI to my friends and family.	18
Actual Use of Artificial Intelligence		
Q31	I have used AI-generated dialogue in creating story scripts, or voice synthesis for creative projects.	19
Q32	I have experimented with AI video editors to create short videos or creative clips.	20

3.1 Hypothesis

Here is the hypothesis that we outline for this study:

H1: External Factors positively influence Perceptions on the Usefulness of AI.

H2: External Factors positively influence Perceptions of Task Simplification through AI.

H3: Internal Factors positively influence Perceptions on the Usefulness of AI.

H4: Internal Factors positively influence Perceptions of Task Simplification through AI.

H5: Perceptions of Task Simplification positively influence Perceptions on the Usefulness of AI.

H6: Perceptions on the Usefulness of AI positively influence Attitude toward the Adoption of AI.

H7: Perceptions of Task Simplification positively influence Attitude toward the Adoption of AI.

H8: Attitude toward the Adoption of AI positively influences Behavioral Intention to Use AI.

H9: Behavioral Intention to Use AI positively influences Actual Use of AI.

3.2 Research Model

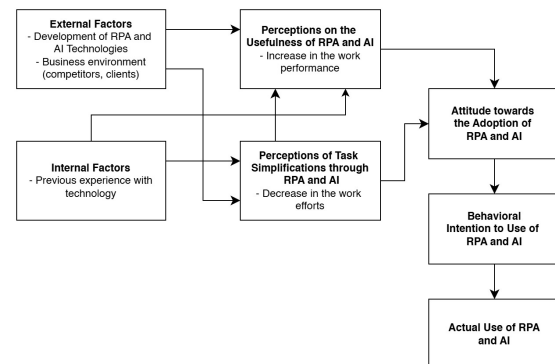


Figure 1: Proposed Research Model by Isip (2024)

Although the first model suggested by Isip (2024) talked about using Robotic Process Automation (RPA) and Artificial Intelligence (AI) in the accounting field, this study changed the model to fit the film industry and its focus on AI-

driven creativity as suggested in Figure 1. The main change was replacing “RPA and AI” with just “AI,” because this study is more about how AI is used creatively rather than for automating tasks.

The changes in the model help for the research to draw better in showing how Gen Z views and perceives AI as a creative tool, and not just for making things faster or more efficient. However, for the main variables of the model, such as external and internal factors, how useful people think AI is, how easy they find it to use, their attitude, their intention to use it, and how often they use it, stay the same. These variables help explain how people accept new technology. By changing the language and focus, the model becomes more useful for looking at creativity, innovation, and personal expression in the film industry.

As a result, Figure 2 shows a version of Isip’s (2024) model that has been adapted to fit the unique characteristics of Gen Z and the creative use of AI, while keeping the original theory.

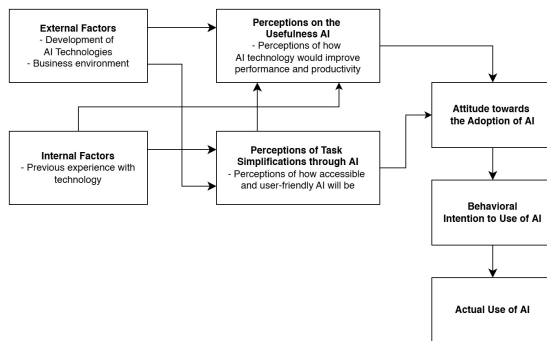


Figure 2: Adapted Research Model

Figure 2 illustrates the adapted research model based on Isip (2024). In this study, the research model is modified to focus solely on Artificial Intelligence (AI) as a creative tool in the film industry, while the original framework examined RPA and AI in accounting. The adaptation highlights on discovering new insights on Gen Z’s perception of AI as a tool in creativity in making a film. The underlying description of the adapted research model from Figure 2 are as described below.

External factors represents the technological and business environment that influences the adoption of AI in the film industry, which includes the accelerated development of AI technologies that opens the door in creating creative possibilities. This phenomenon adds a layer of pressure to the business environment as it is competing among the film industries and evolving audience expectations.

However, in contrast to the external factors, the internal factors acts in capturing the individual’s prior experience and familiarity with technology. As the natives in digitalization era, Generation Z or Gen Z often possesses extensive exposure to digital tools and platforms. This exposure sharpens their readiness in accepting the AI-generated films.

Perceptions on the usefulness of AI represents the belief that AI helps in enhancing the creativity outcomes that constructs expectations which improve the film quality, generative innovative ideas, and expand artistic possibilities. For Gen Z, usefulness is perceived for extending the creativity and originality ideas.

Perceptions of task simplification through AI serves to measure the perceived ease of integrating AI into creative process. This includes the beliefs that AI can help in simplifying technical tasks, accelerating the production timelines and reduces effort in enhancing the production quality during editing and visual. This also indicates in determining whether AI is perceived as accessible creative partner or not.

Attitude towards the adoption of AI reflects the individual in accepting the use of Artificial Intelligence (AI) for film production development. It is shaped by perceptions of usefulness and ease of use, which acts the evaluative stance, whether the adoption of AI received negative or positive responses, and it also determines whether Gen Z views AI as a legitimate create tool or as a challenge to human-based film production.

Behavioral intention to use AI indicates the motivational aspect of adoption, which shows the willingness and commitment in engaging with AI-generated films. The intention reflects as the immediate point to actual usage.

Lastly, actual use of AI refers to the extent to which individuals have engaged with AI tools in creativity tasks. This includes the ability in assisting or experiment with AI video editors, employing AI-generated dialogue and applying AI in editing or visual design. For Gen Z, the actual use demonstrated how perceptions and intentions are translated into concrete creative processes, showing how AI is included into their experiences with AI-generated films.

Building upon the adapted research model, the correlation among the variables creates a sequential relationship between the variables. External and internal factors indicate the prior experiences can influence in shaping the Gen Z’s perceptions of AI’s usefulness and task

simplification. These perceptions then subsequently affect their views towards the attitudes in AI adoption, which drive behavioral intentions and, in the end, actual use of AI in creative film-making.

3.3 Object of the Research

The main object of this research study is the individuals born between 1997 to 2012, also known as Generation Z / Gen Z. In this research study, we are focusing on analyzing their perception of creativity within the film industry that is generated by Artificial Intelligence (AI). These include AI-generated scripts, deep-fake actors, and other creative elements enhanced or produced by AI [19]. The research does not focus on a specific film title or genre. Instead, it explores Gen Z's general perception of AI-generated creativity across various types of films. However, some questions in the questionnaire will include movie clips of AI used in films as visual examples. Gen Z is selected as our primary research object because of their high exposure to both AI technologies and film content, which makes them suitable subjects for exploring AI-generated creativity.

3.4 Focus of the Research

This study aims to examine the acceptance of how Gen Z perceives the use of artificial intelligence in the creative processes of the film industry. The use of artificial intelligence in the creative processes of the film industry includes AI-generated scripts, synthetic actors (deep fakes), AI-assisted CGI, and editing tools. This study aims to seek in providing insights into Gen Z's acceptance, trust, skepticism, or critical views on the rise of machine-driven creativity in film production. The creative processes are not implemented in the study but will be explored through academic literature, case studies, and Gen Z's perspectives gathered via questionnaires. The focus of this study is:

1. To analyze Gen Z's perspective in Indonesia towards AI-generated production in the film industry,
- To investigate how filmmaking processes are affected by the use of AI technologies, such as deep-fakes, AI-generated screenplays, and AI-enhanced CGI,
2. To investigate the standards and elements that can affect Gen Z's decision to accept or reject creative content that produced by AI,
3. To examine real-life examples of AI use in films, and
4. To investigate how AI is influencing the future of filmmaking and related industries

3.5 Research Location

The research was conducted online, targeting Gen Z, also that known as Generation Z, respondents primarily located in Indonesia. Data collection was carried out using a questionnaire distributed through Google Forms, allowing participants from different regions across Indonesia to access and complete the survey remotely. This online method makes it easier to reach respondents from different regions and helps collect data more efficiently from Generation Z in Indonesia.

3.6 Research Method

The research used in this study is a quantitative research method, aiming to analyze the correlation between various components of AI-generated creativity in film and Gen Z's perception toward several variables related. This study uses structured questionnaires with Likert-scale items to measure the variables included in the research model, then the results will be analyzed statistically to identify trends and relationships between the variables. The use of Likert scale can allow the respondents to express their level of agreement with each statement, making it possible to measure attitudes, perceptions, and behavioral intentions toward the use of artificial intelligence in the film industry using PLS-SEM. The scale ranges from 1 to 5, where 1 indicates strongly disagree and 5 indicates strongly agree. Measuring the respondents' perceptions and acceptance regarding the adoption of AI and its creative use in the film industry by using this approach. The questionnaire will be distributed to Gen Z respondents (aged 13-27) primarily located in Indonesia, and the data will be analyzed using Excel and SmartPLS4 to evaluate perceptions and trends.

3.7 Variables

The study will use two research variables, independent variables (X) and dependent variables (Y).

3.7.1 Independent variables

The independent variables listed in Table 2 represent the aspects of artificial intelligence application in the film industry, as adapted from the previous research paper [17].

Table 2: Independent Variables

No.	Variable Name	Definition
1	External Factors	Development of AI Technologies & Business Environment
2	Internal Factors	Previous Experience with Technology

3.7.2 Mediator variables

The mediator variables presented in Table 3 show the cognitive and affective processes by which external and internal influences an individual's behavior. This indicates Gen Z's perception on AI's perceived usefulness and ease of use, which can impact their attitudes and intentions towards AI.

Table 3: Mediator Variables

No.	Variable Name	Definition
1	Perceptions on the Usefulness of AI	Perceptions of how AI technology would improve performance and productivity
2	Perceptions of Task Simplification through AI	Perceptions of how accessible and user-friendly AI will be
3	Attitude Towards the Adoption of AI	Overall positive or negative evaluation develops toward implementing and using AI-generate film
4	Behavioral Intention to use of AI	A decision and commitment that make to utilize AI technology on films

3.7.3 Dependent variables

The dependent variable shows in Table 4 reflects Gen Z's perception toward AI-generated creativity in film.

Table 4: Dependent Variable

No.	Variable Name	Definition
1	Actual Use of AI	The extent to which respondents have personally engaged with AI tools in creative activities

The data for this study will be collected using quantitative approaches, through online distribution via social media platforms. The online distribution will take the form of a questionnaire, which will be delivered to people in Indonesia. This questionnaire will include various questions about people's perspectives and thoughts on AI-produced films. The population for this study is Generation Z, which is defined as people born between 1997 to 2012 or the age of 13 to 28 years old.

The population consists of Gen Z individuals residing in Indonesia. The research employed a non-probability voluntary response sampling approach through online distribution via social media platforms. This strategy was used to ensure that certain sections of the diverse Gen Z population are sufficiently represented, allowing for a more nuanced examination of their own opinions. The population will be classified into numerous groups into:

- Age: 13 until 28 years old
- Country: Indonesia

Our target for our questionnaire is 400 respondents in which those respondents are from Indonesia. We are going to send out our questionnaires to our friends and family in those continents who are Gen Z. The questions in the questionnaire will be presented in English, which is a universal language, to ensure that every respondent can understand it. The responses will be given in numerical form, using a scale of 1-5 to indicate the level of agreement, as well as multiple choice questions, to show their preference.

From the questionnaire answers, all the collected data will be uploaded into the software called SmartPLS4, which is used to analyze data through descriptive, statistics, and hypothesis testing. This software will provide the summarization of our research findings and gain new insights into this underexplored area in the acceptance perspectives of Gen Z towards Artificial Intelligence-generated animation.

4. RESULTS AND DISCUSSIONS

This study uses Partial Least Squares Structural Equation Modelling (PLS-SEM) for analyzing the data because of the moderate complexity of the research model, using a data analysis software that is SmartPLS4. PLS-SEM is known for its great ability to handle and analyze complex models and access both the measurement and structural models at the same time [18]. The questionnaires that we distributed collected a total of 412 responses, and only 376 were deemed valid for the analysis.

The data collected indicates that respondents' ages range from 13 to 28 years, which corresponds to the age classified as Generation Z, or also known as Gen Z. The specific demographic group was selected because Gen Z is considered one of the most technologically engaged generations and is getting more exposure to the current digital media and recently artificial intelligence technologies.

Their familiarity and exposure with technologies makes them a relevant group for examining perceptions towards the use of AI in the film industry.

The following sections present the analysis results for this study. The outer loading results (Figure 3) are first discussed to evaluate the reliability of the indicators. This is followed by the reliability and convergent validity results (Figure 4), which include Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE). Lastly, the structural model results (Figure 5) are presented, highlighting the p-value to determine the significance of the relationships between the variables.

4.1 Outer Loadings Results

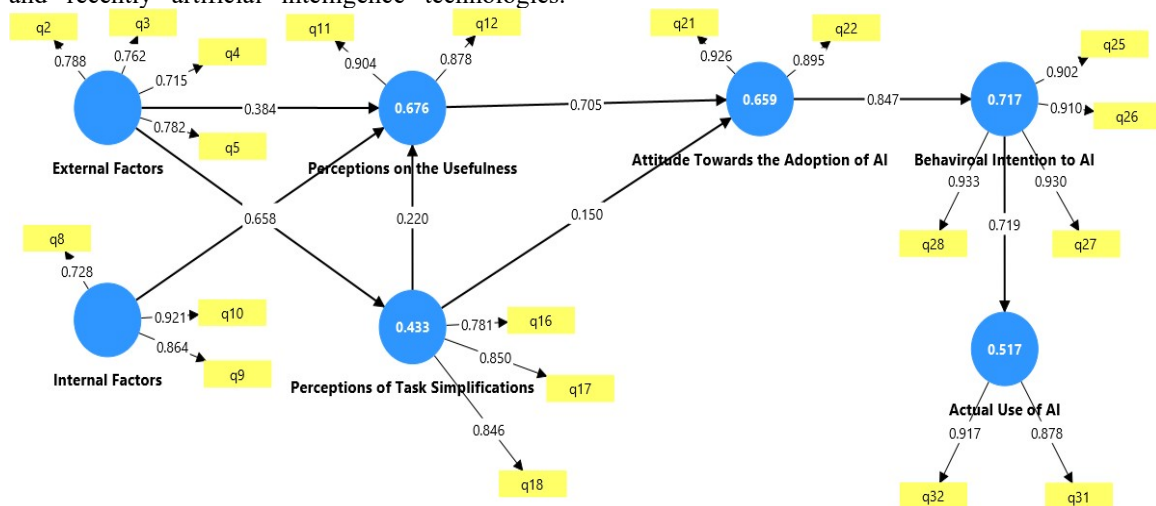


Figure 3: Outer Loadings Results

Figure 3 shows the measurement model was assessed using SMART-PLS of the Outer Loadings for the research model. According to recommended guidelines, outer loading values above 0.70 indicate satisfactory indicator reliability, with higher values indicating stronger reliability.

The following are the validated outer loadings questions of each variable:

1) External Factors

a) "The filmmaking process has undergone major changes thanks to advances in AI technology" (0.788)

b) "The use of AI in the creative production process is strongly encouraged by the business environment in the film industry" (0.762)

c) "The use of AI in film production is increasing due to competition between film companies" (0.715)

d) "AI makes movies better and more appealing to audiences" (0.782)

2) Internal Factors

a) "My experience with technology can influence my acceptance of creative works produced by AI" (0.728)

b) "I value films made by artificial intelligence more than those made by humans" (0.864)

c) "I want to watch a movie that was mostly made with AI" (0.921)

3) Perceptions on the Usefulness

a) "AI technology is easy to apply in the creative process of filmmaking" (0.781)

b) "The use of AI technology helps accelerate the film production process" (0.850)

c) "AI facilitates editing and improves the visual quality of films" (0.846)

4) Attitude Towards the Adoption of AI

- a) "I have a positive view of films that use AI" (0.926)
 - b) "I feel that AI can be a creative tool for filmmakers" (0.895)
- 5) Behavioral Intentions to Use AI
- a) "I am willing to watch movies that are partially or entirely made using AI" (0.902)
 - b) "I support filmmakers who use AI in their creative production process" (0.910)
 - c) "I am open to watching more films made with the help of AI in the future" (0.930)

- d) "I will recommend movies made with the help of AI to my friends and family" (0.933)
- 6) Actual Use of AI
- a) "I have used AI-generated dialogue in creating story scripts, or voice synthesis for creative projects" (0.878)
 - b) "I have experimented with AI video editors to create short videos or creative clips" (0.917)

4.2 Reliability and Convergent Validity

Analysis Results

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Actual Use of AI	0.761	0.778	0.892	0.806
Attitude Towards the Adoption of AI	0.796	0.812	0.907	0.829
Behavioral Intention to AI	0.938	0.939	0.956	0.844
External Factors	0.762	0.773	0.847	0.581
Internal Factors	0.788	0.804	0.878	0.708
Perceptions of Task Simplifications	0.768	0.779	0.866	0.683
Perceptions on the Usefulness	0.741	0.748	0.885	0.794

Figure 4: Reliability and Convergent Validity Analysis Results

As shown in Figure 4, this study evaluates the reliability and convergent validity of the measurement model using Cronbach's Alpha, Composite Reliability (ρ_a and ρ_c), and Average Variance Extracted (AVE). These indicators are commonly applied in Partial Least Squares Structural Equation Modeling (PLS-SEM) to ensure that the constructions in the research model are measured consistently and accurately by their indicators.

A Cronbach's Alpha value is greater than 0.7 indicates that the indicators have adequate internal consistency. In PLS-SEM, construct reliability is also evaluated using Composite Reliability (ρ_a and ρ_c). Composite Reliability is also taken into consideration because of the various outer loadings of each indicator, as it offers a more accurate estimate than Cronbach's Alpha. Similarly with Cronbach Alpha's, with the values above 0.7 suggest that the construction has good internal reliability. Convergent validity is assessed using Average Variance Extracted (AVE). When compared to measurement error, AVE quantifies how well a construct explains the variance of its

indicators. The indicators accurately reflect the latent construct when the AVE value is greater than 0.5, which means that the construction accounts for more than half of the variance of its indicators.

According to the findings shown in Figure 4, every construction in the model satisfies the suggested reliability and convergent validity thresholds.

The External Factors exhibit respectable reliability, with Cronbach's Alpha of 0.762, Composite Reliability (ρ_a) of 0.773, Composite Reliability (ρ_c) of 0.847, and AVE of 0.581. The indicators for this construction gauge respondents' opinions about how outside factors, like technological advancements in filmmaking, affect the adoption of AI in the film industry. The findings show that these products consistently reflect outside factors that promote the use of AI in filmmaking from the industry environment, competition between film companies, and the belief that AI can make films more appealing to audiences.

As for Internal Factors, it also exhibits strong reliability, with Cronbach’s Alpha of 0.788, Composite Reliability (rho_a) of 0.804, Composite Reliability (rho_c) of 0.878, and AVE of 0.708. This construct focuses on respondents’ individual viewpoints regarding AI-generated movies, including their familiarity with technology, their admiration for AI-produced movies, and their desire to watch movies that are primarily made with AI. The findings show that the respondents’ internal attitudes and level of openness regarding AI in creative works are consistently reflected in these indicators.

The Perceptions of the Usefulness also satisfy the reliability requirements, with Cronbach’s Alpha of 0.741, Composite Reliability (rho_a) of 0.748, Composite Reliability (rho_c) of 0.885, and AVE of 0.794. This construct indicators gauge respondents’ perceptions of the useful advantages of AI in filmmaking, such as streamlining creative processes, accelerating production, and enhancing editing and visual quality. The findings imply that respondents consistently believe AI can help with filmmaking.

Perceptions of Task Simplifications exhibit satisfactory reliability as the Cronbach’s Alpha of 0.768, Composite Reliability (rho_a) of 0.779, Composite Reliability (rho_c) of 0.866, and AVE of 0.683. This construct represents respondents’ opinions about how AI can make certain film production tasks easier.

Attitude Towards the Adoption of AI exhibits adequate reliability as the Cronbach’s Alpha of 0.796, Composite Reliability (rho_a) of 0.812, Composite Reliability (rho_c) of 0.907, and AVE of 0.829. The indicators gauge respondents’ general attitudes regarding AI in filmmaking, including whether they think it’s a creative tool for filmmakers and whether they have a favorable opinion of AI-based movies.

Behavioral Intention to AI has exceptionally high reliability through the visibility of Cronbach’s Alpha of 0.938, Composite Reliability (rho_a) of 0.939, Composite Reliability (rho_c) of 0.956, and AVE of 0.844. This construct assesses respondents’ intentions to interact with AI-generated movies, including their willingness to watch them and their support for AI-powered filmmakers.

As for Actual Use of AI, it exhibits strong internal consistency and convergent validity with Cronbach’s Alpha of 0.761, Composite Reliability (rho_a) of 0.778, Composite Reliability (rho_c) of 0.892, and AVE of 0.806. The indicators for this construct assess respondents’ actual experiences utilizing AI tools in creative endeavors, such as experimenting with AI-based video editing tools for creating dialogue using AI.

The result listed in Figure 4 shows that these items reliably suggest how AI is actually used in the creation of creative media, and visibly noted that every Cronbach’s Alpha and Composite Reliability value is higher than 0.7, the questionnaire’s indicators exhibit strong internal consistency. Furthermore, every AVE value is greater than 0.5, indicating that the constructions adequately account for the variance of their indicators.

These findings suggest that the measurement items used in this study consistently represent their respective variables and accurately measure the intended concepts.

In other words, the questionnaire indicators used to capture respondents’ views about AI in filmmaking are reliable and valid. Therefore, the constructs in this study are considered suitable for further analysis, particularly for examining the relationships between variables in the structural model and understanding Indonesian Generation Z’s perspectives on the use of artificial intelligence in the film industry.

4.3 Structural Model Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Attitude Towards the Adoption of AI -> Behavioural Intention to AI	0.847	0.847	0.015	56.928	< 0.05
Behavioural Intention to AI -> Actual Use of AI	0.719	0.720	0.028	25.547	< 0.05
External Factors -> Perceptions of Task Simplifications	0.658	0.660	0.034	19.309	< 0.05
External Factors -> Perceptions on the Usefulness	0.384	0.384	0.048	7.960	< 0.05
Internal Factors -> Perceptions on the Usefulness	0.334	0.336	0.042	7.922	< 0.05
Perceptions of Task Simplifications -> Attitude Towards the Adoption of AI	0.150	0.149	0.049	3.041	< 0.05
Perceptions of Task Simplifications -> Perceptions on the Usefulness	0.220	0.219	0.044	4.949	< 0.05
Perceptions on the Usefulness -> Attitude Towards the Adoption of AI	0.705	0.705	0.044	16.103	< 0.05

Figure 5: Structural Model Results

The study will use two research variables, independent variables (X) and dependent variables

As shown in the structural model in Figure 5, the data collected in this study paper was evaluated using the path coefficients and p-values to measure the significance and strength of the hypothesized relationships among the constructs. A relationship is considered statistically supported if the p-value is less than 0.05. The Outer Loadings Bootstrapping shows the measurement model assessment to confirm that all items are statistically significant in PLS-SEM. The result shows all p-values are < 0.05, indicating the items are highly significant.

The results of hypothesis testing are as follows:

- H1: External Factors → Perceptions on the Usefulness is supported ($\beta = 0.384$, p-value < 0.05). External factors such as technological infrastructure significantly enhance perceptions of Artificial Intelligence's usefulness.
- H2: External Factors → Perceptions of Task Simplifications is supported ($\beta = 0.658$, p-value < 0.05). The external factors strongly influence the performance of AI's usefulness.
- H3: Internal Factors → Perceptions on the Usefulness is supported ($\beta = 0.334$, p-value < 0.05) with personal readiness, skills, and confidence of the individuals positively affect perceptions of AI's usefulness.
- H4: Internal Factors → Perceptions of the Task Simplifications are not supported. This path could not be evaluated in the Figure 5 as the corresponding indicator was removed during the measurement model refinement stage due to an outer loading value below the acceptable threshold of 0.7.
- H5: Perceptions of Task Simplifications → Attitude Towards the Adoption of AI is supported ($\beta = 0.150$, p-value < 0.05) as it is implying that the AI can be perceived as simplifying the tasks, it can enhance the perceptions of usefulness.
- H6: Perceptions on the Usefulness → Attitude Towards the Adoption of AI is supported ($\beta = 0.705$, p-value < 0.05), which suggests that the perceived usefulness is the most influential factor in shaping the positive attitudes towards AI adoption.
- H7: Perceptions on the Task Simplification → Attitude Towards the Adoption of AI is supported ($\beta = 0.220$, p-value < 0.05). This suggests that the task simplification contributes to more favorable attitudes.

- H8: Attitude Towards the Adoption of AI → Behavioral Intention to AI is highly supported ($\beta = 0.847$, p-value < 0.05), and this provides the insight on how positive attitudes are highly needed in AI adoption for the intention of using AI.
- H9: Behavioral Intention to AI → Actual Use of AI is supported ($\beta = 0.719$, p-value < 0.05). This implies that the behavioral intention reliability predicts the actual use of AI.

The structural model results show that most of the proposed relationships in the research model are supported, as the p-values are below the recommended threshold of 0.05. The relationships between the variables in the model are statistically meaningful, which suggests that both external industry factors and internal individual factors influence how Gen Z perceives the usefulness of artificial intelligence and its ability to simplify tasks in filmmaking. In addition, perceptions of usefulness and task simplification play an important role in shaping respondents' attitudes toward the adoption of AI, which then influences their behavioral intentions and actual use of AI technology.

The result listed in Figure 5 provide insight into how the Gen Z in Indonesia views the integration of artificial intelligence in the film industry. Based on the results, it highlights that when AI is perceived as useful and capable of simplifying filmmaking processes, it can encourage more positive attitudes and increase the likelihood of AI adoption in creative activities.

5. CONCLUSIONS

(1) Discussions

The study's findings support the robustness of the modified TAM model in the context of creative films, with high psychometric reliability (all Cronbach's Alpha >0.7, AVE >0.5) and strong support for the majority of hypotheses (e.g., perceived usefulness as the strongest predictor of attitude, path 0.705, $p < 0.05$). However, H4's untestability due to low outer loading and voluntary sampling bias limiting representativeness. In contrast to Isip (2024), which used TAM+RPA to account for efficiency gains without focusing on creativity, this research innovates by customising it to Indonesian Gen Z's perceptions on films, highlighting AI as a creative aid rather than automation, and identifying reservations (40% strongly disagree on preferring AI over human films) that were not present in earlier productivity-centric studies like Sun (2024) or Li (2022). In contrast to global examples like Chow (2020) on

Hollywood AI tools where ethical concerns are less quantified, our findings show high acceptance (e.g., attitude strongly drives intention, 0.847) but diverge by revealing film-specific scepticism on authenticity; thus, while validating TAM's universality, it pioneers context-specific emotional barriers in emerging markets. Chan & Lee (2023) highlighted Gen Z's general AI optimism over older generations in education.

The study's results confirm the strength of the adapted TAM model for creative filmmaking, backed by solid reliability metrics (all Cronbach's Alpha >0.7, AVE >0.5) and robust support for most hypotheses (e.g., perceived usefulness as the strongest predictor of attitude, path 0.705, $p < 0.05$). Yet, H4 remained untestable due to poor outer loading, compounded by voluntary sampling bias that curbs generalizability. Diverging from Isip (2024)'s TAM+RPA application in accounting, which prioritized efficiency over creativity, this work tailors the model to Indonesian Gen Z's film perceptions, positioning AI as a creative enhancer and uncovers hesitations (e.g., 40% rejecting AI over human films), absent in productivity-focused prior studies like Sun (2024) or Li (2022). While echoing Chan & Lee (2023)'s note on Gen Z's broader AI optimism versus older cohorts in education, and high acceptance here (attitude → intention at 0.847), it contrasts global cases like Chow (2020) on Hollywood tools by quantifying authenticity doubts; thus, affirming TAM's versatility while spotlighting novel emotional hurdles in emerging-market film contexts.

There are several limitations regarding validity that should be acknowledged in terms of construct validity, internal validity and external validity. The research model in this study which is illustrated in Figure 2 adapted from the basic TAM constructs to fit a creative industry context, by reframing Perceived Usefulness as Perceptions on the Usefulness of AI and Perceived Ease of Use as Perceptions of Task Simplifications through AI. While these adaptations were theoretically justified, the extent to which the questionnaire items accurately captured these reframed constructs remains a limitation which only access through AVE and CR [18].

For internal validity, the questionnaire results limit the ability to establish causal relationships between constructs and introduce the risk of common method bias. Lastly, external validity is constrained by the use of non-probability sampling among Indonesian Gen Z respondents only, limiting generalizability to other generations, cultures, or

industries. As TAM was originally validated outside of Indonesian contexts, its application here to an Indonesian creative industry setting represents both a contribution and a boundary condition of this study. To protect creators' intellectual property, the Indonesian film industry, which is still in the early phases of integrating AI, needs to proactively establish clear legal frameworks and digital rights management systems. Without copyright protections in place, the creativity and authenticity that Gen Z respondents in this study place such a high value on could be compromised.

The issue of copyright and intellectual property is a crucial topic that requires significant attention. The lines separating creative ownership are blurring as AI systems are able to produce screenplays, graphics, and even synthetic actors. Because of this, there is a significant risk of exploitation, where the hard work and original ideas of human creators could be replicated or appropriate without proper credit or compensation. To protect creators' intellectual property, the Indonesian film industry, which is still in the early phases of integrating AI, needs to proactively establish clear legal frameworks and digital rights management systems. Without copyright protections in place, the creativity and authenticity that Gen Z respondents in this study place such a high value on could be compromised. Future study should specifically examine the legal aspects of AI use in the Indonesian filmmaking context, particularly regarding copyright ownership, so that technological advancement does not come at the cost of human creative rights.

5.1 Conclusions

This study aimed to examine the acceptance of AI-based creativity in film industries in Indonesia by focusing on the aspects of AI-based scriptwriting, computer-generated imagery (CGI) development, and the use of synthetic performers towards Gen Zs in Indonesia. Using an adapted version of the technology acceptance model (TAM), this study examined how factors such as internal and external influences and the perception of task simplicity and usefulness affect the participants' attitude and use of AI-based creativity.

The structural model also validated the modified TAM model that is used in this study, demonstrating that the value that Gen Z places on AI and its potential for simplifying creativity is subject to both intrinsic and extrinsic factors. The attitude towards AI integration was found to have the greatest influence on the adoption of AI technology among the respondents. The assumption

that AI makes creativity much easier also affected both attitude and usefulness. Finally, the usefulness of AI technology was found to be the strongest predictor of a positive attitude towards AI technology.

The results showed that Gen Zs in Indonesia generally have a positive attitude toward AI-assisted creativity in the production of films, although with some reservation. Although the majority of the participants welcome the use of AI as a part of the creativity, a small portion of them seems to doubt the potential of AI to replace human creativity. For instance, 40% of the respondents strongly disagreed with the statement that they prefer AI-produced films over human-produced ones, while 30% strongly disagreed with the statements supporting the use of AI as the primary source of creativity for filmmaking.

The results from the integrated measurement and structural analysis verify that the model is theoretically robust and psychometrically reliable. In addition, the results from the reliability testing showed that all sections of the proposed model have a Cronbach's Alpha value and Composite Reliability value greater than 0.70. Moreover, all sections have a high Average Variance Extracted value that is above 0.50. This proves that the convergent validity of the proposed model is high, implying that the indicators for External Factors, Internal Factors, Perceived Usefulness, Perceived Task Simplification, Attitude Towards the Adoption of AI, Behavioral Intention to Use AI, and Actual Use of AI have a high level of internal consistency in measuring these constructs.

Moreover, the results of the bootstrapping for the outer loading of the measurements indicate that all the indicators are significant at a 1% significance level. This means that all the indicators are making a significant contribution to the variables, with no unusual indicators identified. The results, therefore, point to a highly stable and reliable measurement model, which ensures minimal room for the results to be skewed in any way for the subsequent analysis.

Furthermore, the results point to the fact that the acceptance of AI in the production of films depends on both the general technological environment as well as the individual's own exposure to digital tools. For instance, the results point to the fact that Gen Z is more likely to embrace the use of AI, provided the technology is user-friendly and beneficial, for instance, to the editing of the films. However, the fact that attitudes and behavioral intentions have a significant effect on the acceptance of AI means that ethical,

authenticity, and emotional concerns are essential, so that the use of technology can enhance the creativity that the Gen Z audience associates with filmmaking.

The study on Gen Z's perspectives in Indonesia toward AI-generated creativity in the film industry demonstrates several key strengths in its methodological rigor and theoretical foundation. It employs a robust quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS4, analyzing data from 376 valid responses out of 412 collected from Gen Z respondents (aged 13-28), which provides a solid sample size for statistical power in a targeted demographic. Strong internal consistency and convergent validity are confirmed by the measurement model's excellent reliability metrics across all constructs, such as Cronbach's Alpha values above 0.7, Composite Reliability exceeding 0.7, and Average Variance Extracted (AVE) above 0.5. Additionally, the majority of the hypotheses (H1-H3, H5-H9) have significant p-values below 0.05, which validates the Technology Acceptance Model (TAM) framework from Isip (2024) for the film context and provides useful insights like the strong influence of perceived usefulness on attitudes (path coefficient 0.705).

Despite the advantages, this study has weaknesses that restrict its depth and generalizability. Non-probability voluntary response sampling via social media, relying on networks like friends and family, risks selection bias by favoring pro-AI Gen Z respondents over a truly representative Indonesian cohort. Hypothesis H4 (Internal Factors → Perceptions of Task Simplification) remains untested after dropping an indicator due to low outer loading (<0.7), suggesting potential flaws in item design or construct definition. The focus solely on Indonesian Gen Z excludes contrasts with other cohorts like Millennials or Gen X, and it sidesteps critical ethical and legal concerns, including copyright and ownership in AI-generated films.

Reflecting on the findings, the author believes that the high acceptance of AI-generated creativity among the Gen Z reflects the openness in generational perspectives to technological innovation in entertainment industry. This highlights the shift that could meaningfully benefit Indonesia's growing film industry as this could ease the film's production too. However, this enthusiasm must be balanced against the concerns of originality of cultural depth as AI tools risk in making the

creativity uniform in creativity outputs in ways that may weaken Indonesia's rich cinematic traditions.

5.2 Limitations and Future Results

This research is limited in scope as it focused solely on Generation Z, leaving room for future studies to broaden their demographic reach by including Millennials and Generation X. These older cohorts may hold notably different views on what constitutes authentic filmmaking, shaped by their varying degrees of familiarity with technology. A cross-generational comparative study would therefore offer a more comprehensive picture of audience attitudes across the Indonesian market. Furthermore, since this study concentrated on specific TAM-related dimensions, which include external and internal factors, perceived usefulness, task simplification, attitude, behavioral intention, and actual use, subsequent research is encouraged to explore the ethical and legal implications of AI in Indonesian filmmaking, particularly surrounding questions of copyright and creative ownership. Incorporating these dimensions into the TAM framework would add a meaningful layer of moral and aesthetic consideration, which is especially relevant within the context of the creative industries.

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